Sodium Hypochlorite Storage

Ultraviolet (UV) radiation not only destroys light sensitive chemicals such as sodium hypochlorite (NaOCL) it also has the potential to significantly degrade the structural integrity of the storage tank containing the light sensitive chemical.

In the past, most polyethylene tank manufacturers have promoted either black pigment or natural translucent polyethylene for sodium hypochlorite applications. While a black tank can block UV rays it also absorbs sunlight which can heat the tank to a level that harms both the tank and the chemicals it contains.

The Snyder Bleach Protection System reflects light away from the container, protecting the bleach within from both UV rays and heat damage. Snyder’s HDLPE #880059, opaque white resin, was specifically designed for storing NaOCL. #880059’s opacity prevents UV rays from attacking the sodium hypochlorite while its white color reflects the sunlight. Reducing exposure to these decomposition catalysts means longer shelf life for your NaOCL.

Rotationally molded HDLPE tanks, unlike fiberglass reinforced plastic (FRP) tanks, have homogeneous walls. Without any fibers for the chemicals to wick along, you get consistent corrosion resistance throughout the tank. HDLPE tanks also have excellent impact resistance, which minimizes damage to the tank during shipping and installation.

The performance of a tank is dependent not only upon the materials used, but also on the manufacturing process.

Snyder has the most rigorous QC program in the industry - to ensure that every tank is built to last. Another Snyder innovation, our Snyder Unitized Molded Outlet (SUMO®), helps maximize tank drainage to remove the sedimentation that can occur with time. The SUMO is available in titanium in 2", 3" 4", or 6" sizes for NaOCL.

Whether you’re in the water treatment, wastewater treatment, pulp and paper, or chemical processing industry, the .942 density HDLPE can provide a cost effective alternative for storing sodium hypochlorite.

Corrosion resistance and toughness mean long tank life. All at an economical price. Call us today to determine if you can benefit by using Snyder storage tanks.

At Snyder Industries, we’re helping companies - see the light.

Pictures are worth a thousand words. Snyder researched and tested the best material for the job, and as a result, recommends the correct material for storage of Sodium Hypochlorite.
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Based on studies conducted in conjunction with the University of Nebraska and resin producers, Snyder Industries, Inc. has determined the best current polyethylene resins available for the storage of sodium hypochlorite.

**Indoor Storage**

- Low UV exposure: HDLPE Resin, natural in color, 1.9 specific gravity, and 600 psi, which meets ASTM standards. (ASTM D 1998)
- Moderate UV Exposure: HDLPE Resin, black in color, 1.9 specific gravity, 600 psi which meets ASTM standards. (ASTM D 1998)

**Outdoor Storage**

- HDLPE Resin, natural in color, 1.9 specific gravity, 600 psi which meets ASTM (ASTM D 1998) standards. 1” sprayed on polyurethane foam insulation with mastic coating.
- HDLPE Resin #880059, opaque white in color, 1.9 specific gravity, 600 psi which meets ASTM standards (ASTM D 1998), provides a full opacity without the residual heat and UV affects of black tanks.

We also recommend the Titanium SUMO® fitting for full drainage and ease in the periodic flushing of the tank in order to prolong tank life. Flushing the tank every six months is recommended. These studies have shown that salt build up in the tanks holds free oxygen molecules near the surface, causing oxidation of the polyethylene. It should also be noted that heavy metal contaminants such as copper or iron increase the rate of oxidation. By utilizing these suggested tank designs, and by following installation guidelines and good maintenance and piping practices, the life of the tank will be extended.

The Compass Publications “Chemical Resistance Guide for Plastics” © 2000, a well respected reference guide for the Plastics Industry states under it’s listing for XLPE Polyethylene for Sodium Hypochlorite “Not as good as HDPE”.

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